POSTAL TEST PAPER

FINAL | SYLLABUS – 2022

PAPER - 14

STRATEGIC FINANCIAL MANAGEMENT

Time Allowed: 3 Hours | **Full Marks: 100**

The figures in the margin on the right side indicate full marks.

Answer Question No. 1 and 8 are compulsory; Answer any four from Question No. 2, 3, 4, 5, 6 & 7.

SECTION – A

Please answer the following questions with brief justification as directed and/or reference to the relevant legal provision as appropriate.

1. (a) Multiple Choice Question: **[10 × 2 = 20]**

(i) The declining market is called bear market because of the______________. Provide a justification.

a. Long hibernation period of bears

b. Traditional usage

c. Fur coat of the bears

d. Attacking manner of bears

(ii) The strike price and the current stock price of a European put option are ₹1,000 and ₹925 respectively. What is its theoretical minimum price after 6 months, if the risk-free rate of interest is 5% p.a.?

a. ₹50.3053

b. ₹50.2056

c. ₹51.2125

d. ₹52.4125

(iii) Which of the following is not an assumption of perfect capital market? Why?

a. No transaction cost

b. No taxes

c. Information is available to all

d. None of the above

(iv) Which of the following is not an apart of financial risk? Why?

a. Operational risk

b. Market risk

c. Credit risk

d. Liquidity risk

(v) DCL measures the relationship between

a. EPS and EAT
b. EPS and P/E
c. EPS and EBIT
d. EPS and Sales

(vi) A project with an initial investment of ₹50 lakh and life of 10 years generates Cash Flow After Tax (CFAT) of ₹10 lakh per annum. Calculate Payback Reciprocal.

a. 15%
b. 18%
c. 20%
d. 22%

(vii) The concept of securitisation is associated with___________. Providejustification for your selection.

a. Capital market
b. Money market
c. Debt market
d. Foreign exchange market

(viii) Hedging through 'currency of invoicing' results in_____________. Why?

a. The exporter covering forex exposure
b. The importer covering forex exposure
c. Both exporter and importer covering forex exposure
d. Either exporter or importer covering forex exposure

(ix) Which of the following is not a type of Euro Notes? Why?

a. Commercial Papers
b. Note Issuance Facility
c. Medium Term Notes
d. Short Term Notes

(x) It was observed that in a certain month, 6 out of 10 leading indicators have moved up as compared to 4 indicators in the previous month. The diffusion index for the month was

a. 20%
b. 40%
c. 60%
d. 80%

SECTION – B

2. **(a)** S Ltd. is a company that specializes in building tracks for high-speed trains. The company is the process of bidding for a new interstate train project. The chief bidding engineer has come up with a net present value estimate of ₹814.5 Crore. His inputs include the company's weighted average cost of capital of 8%, cash inflows of ₹2,000 crore which are expected at the end of 3rd year, annual expenditures for year 1, 2 and 3 of ₹300 crore per year. As the chief investment officer, you have made the following predictions:

For the best-case scenario, you predicted a WACC of 6.5%, cash inflows of ₹2,100 crore at the end of 2nd year and cash outflows of ₹400 crore at the end of 1st year and ₹500 crore at the end of second year. For the worst-case scenario, you predicted a WACC of 9%, cash inflows of ₹1,200 crore at the end of 4th year and cash outflows of ₹200 crore at the end of each year for 4 years. The initial investment is 0 in all scenarios.

Find the best-case scenario and worst-case scenario.

(b) XY Manufacturing Ltd. desires to acquire a diesel generating machine set costing ₹ 40 lakh which has an economic life of 10 years at the end of which the asset is not expected to have any residual value. The company is considering two alternatives: (A) taking the machine on lease (B) purchasing the asset outright by raising a loan. Lease payments are equal annual amounts and have to be made in advance and the lessor requires the asset to be completely amortized over its usefulperiod. The loan carries an interest 16% p.a. The loan has to be paid in 10 equal annual instalments becoming due at the beginning of the first year. Average rate ofincome tax is 50%. It is expected that the operating costs would remain the same under either method. The company allows straight line method of depreciation andthe same is accepted for tax purposes.

Assume tax benefits at the end of the respective years and for end of year zero, tax benefit may be considered at the end of the first year. Use 8% discount rate for p.v. factors. Prepare a statement showing discounted values of annual cash flows to thenearest rupee under alternative (B), only for end of years 0 to 2 and year 10. Whatshould be the maximum annual lease rental for which the lease option may be preferred if you are given that the present value under the loan option is ₹26,57,029? The present value of an annuity of one Rupee:

Year	8%
1 to 9	6.247
1 to 10	6.71

Present value of Rupee one at 8%

Year	0	1	2	3	4	5	6	7	8	9	10
PV	1.00	0.926	0.857	0.794	0.735	0.681	0.630	0.583	0.540	0.500	0.463

[6+10 = 16]

3. (a) ABC finance, a leasing company, has been approached by a prospective customer intending to acquire a machine whose Cash Down price is ₹6 crores. The customer, in order to leverage his tax position, has requested a quote for a four-year lease with rentals payable at the end of each year but in a diminishing manner such that they are in the ratio of 4: 3: 2: 1. Depreciation can be assumed to be on straight line basis and ABC Finance's marginal tax rate is 30%. The target rate of return for ABC Finance on the transaction is 10% p.a. The asset has no salvage value.

(b) Majestic Transport needs a machine for which it is considering the following two options:

(i) Buy the asset for ₹6,00,000 by borrowing the amount @12% interest and repaying the same together with interest in 4 equal annual instalments.

(ii) Acquiring the asset on lease with a payment of annual lease rentals for 4 years.

The firm follows straight line method of depreciation and is under the income tax bracket of 30%. Life of the asset is 4 years.

If Majestic Transport is willing to opt for equal annual plan for lease rental, what will be the lease rental payable? **[6+10 = 16]**

4. (a) Following is the data regarding six securities:

Securities	A	B	C	D	E	F
Return (%)	8	8	12	4	9	8
Risk (%) (Standard Deviation)	4	5	12	4	5	6

I. Which of the securities will be selected?

II. Assuming perfect correlation, is it preferable to Invest 75% in Security A and 25% in Security C?

(b) (i) Mr. X is long on a forward contract to purchase a non-dividend paying share in 3 months. The current market price of the share is ₹70 and the three-month risk-free rate of interest is 6% p.a. continuously compounded. Calculate the theoretical forward price. Is there any arbitrage opportunity if the actual forward price is -
I. ₹73 and
II. ₹71?

(ii) MNC rolls over a $25 million loan priced at LIBOR on a three-month basis. The company feels that interest rates are rising and that rates will be higher at the next roll-over date in three months. Suppose the current LIBOR is 5.4375%. Explain how MNC can use FRA at 6% offered by a bank to reduce its interest rate risk on this loan. In three months, if interest rates have risen to 6.25%, how much will MNC receive/pay on its FRA? Assume the three months period as 90 days. **[6+(4+6)= 16]**

5. **(a)** DY has purchased ₹400 million cap (i.e., call options on interest rates) of 9 percent at a premium of 0.65% of face value. ₹400 million floor (i.e., put options on interest rates) of 4 percent is also available at premium of 0.69 percent of face value.

(i) If interest rates rise to 10 percent, what is the amount received by DY? What are the net savings after deducting the premium?

(ii) If DY also purchases a floor, what are the net savings if interest rates rise to 11 percent? What are the net savings if interest rates fall to 3 percent?

(iii) If, instead, DY sells (writes) the floor, what are the net savings if interest rates rise to 11 percent? What if they fall to 3 percent?

(iv) What amount of floors should it sell in order to compensate for its purchases of caps, given the above premium?

(b) Write a note on - (i) Interest Rate Cap
(ii) Hedging **[8+(4+4) = 16]**

6. **(a)** The following particulars are furnished about three Mutual Fund Schemes, P, Q and R

Particulars	Scheme P	Scheme Q	Scheme R
Dividend Distributed	₹1.75	—	₹1.30
Capital Appreciation	₹2.97	₹3.53	₹1.99
Opening NAV	₹32.00	₹27.15	₹23.50
Beta	1.46	1.10	1.40

Ascertain the Alpha of the three schemes and evaluate their performance, if Government of India Bonds carry an interest rate of 6.84% and the NIFTY has increased by 12.13%.

(b) (i) An open-end fund has a net asset value of ₹10.80 per unit. It is sold with a front load of 6%. What is the offering price?

(ii) If the offering price of an open-end fund is ₹12.50 per unit and the fund is sold with a front load of 5%, what is the net asset value? **[12+4 = 16]**

7. **(a)** List the differences between Security Market Line and Capital Market Line.

(b) The historical rates of return of two securities over the past ten years are given.

Calculate the Covariance and the Correlation coefficient of the two securities;

Years	1	2	3	4	5	6	7	8	9	10
Security A : (Return %)	12	8	7	14	16	15	18	20	16	22
Security B : (Return %)	20	22	24	18	15	20	24	25	24	18

[6+10 = 16]

SECTION – C

8. Y, a British firm with a US subsidiary, seeks to refinance some of its existing British pound debt to include floating rate obligations. The best floating rate it can obtain in London is LIBOR + 2.0%. Its current debts are as follows:
US$ 10 million owed to CT Bank at 9.5% (fixed annually); and
£ 5 million owed to MD Bank at 9.5% (fixed) annually.

HRS Company wishes to finance exports to Britain with £3 million of pound denominated fixed rate debt for six months. HRS is unable to obtain a fixed interest ratein London for less than 13.5% interest because of its lack of credit history in the UK. However, Lloyds Bank is willing to extend a floating rate British pound loan at LIBOR
+ 2%. HRS, however, cannot afford to pay more than 12%. Assume that Y is in a strongbargaining position and can negotiate the best deal possible, but HRS will not pay over 12%. Assume further that transaction costs are 0.5% and exchange rates are stable. Advise whether Y and HRS can help each another by an interest rate swap. In case the swap deal is workable, determine the amount of gains for Y, HRS and the Swap Dealer.Create a diagrammatic representation of the effective post-swap interest rates of each party. Explain the diagram with needful narratives. Also show the effective interest ratesfor each party over the six months period of the swap. **[16]**